United States Patent [19]

Myer

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[54] **HEATING ELEMENT**

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[51] **Int. Cl.**[4] **F24H 3/00**; H05B 1/00; H01C 3/10

[52] **U.S. Cl.** **219/354**; 219/552; 65/12; 338/280; 338/283

[58] **Field of Search** ..... 219/354, 353, 357, 549, 219/535, 366, 388 S, 388, 552; 65/12, 18.1, 18.2, 144, 271, 292; 338/283, 284, 279, 280, 281, 214

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[57] **ABSTRACT**

An electrically energizable high intensity, radiant energy heater (**8**) having a general M-shape for providing a pocket (**20**) for localized high intensity isothermal heating for fusion and fiber processing. The heater is shaped to provide easy access for a fiber (**18**) at an entry (**16**) to enable insertion of the fiber into the isothermal high temperature zone in pocket (**20**). A second re-entrant wall external to the pocket provides radiant shielding and buffers the isothermal heating zone from the cool environment. The heater may be constructed from a ribbon of a resistively heated metal, such as platinum foil.

33 Claims, 2 Drawing Figures